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MOTOROLA INC
5401 NORTH BEACH STREET
MAILSTOP E230
FORT WORTH, TX 76137

EXAMINER	
BALBAN, SIMEON M	
ART UNIT	**PAPER NUMBER**
2686	

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3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/850,314	DORENBOSCH, JHEROEN P.	
	Examiner	Art Unit	
	Simeon Marc Balban	2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 - 20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1 – 8, 10 – 16, 18 - 20** are rejected under 35 U.S.C. 102(b) as being anticipated by Fitch et al. (Hereafter referred to as Fitch)(U.S. Patent Number 6,321,092).

Regarding **claim 1**, Fitch (see Figure 2) discloses a method in a wireless communication system (200) for determining a location of a mobile station (MS), comprising the steps of:

"obtaining and storing location information corresponding to a target MS in a plurality of reporting devices (202, 204, 206) and in a location server (214) of the wireless communication system (200);" As disclosed by Fitch, "each of the LFEs (location finding equipment) **202**, **204** or **206** outputs location information to its

respective LFC (location finding controller) **208**, **210** or **212**." and "The LFCs **208**, **210** and **212** collect and aggregate the "raw" location into a standard format which is then sent to LC (location cache) **220** of the LM (location manager) **214** for storage." (see column 7 lines 30 – 32 and lines 42 - 44)

Which directly reads on this portion of the claim.

Fitch discloses "the illustrated system **200** includes a WLI (wireless location interface) **224** that allows wireless location applications **226**, **228** and **230** to selectively access information stored in the LC **220** or prompt one or more of LFEs **202**, **204** and/or **206** to initiate a location determination.....In this manner, the applications can make use of the best or most appropriate location information available....." (see column 10 line 58 – column 11 line 3). The ability to prompt one or more LFEs (202, 204, 206) demonstrates the ability to designate subsets of reporting devices, and directly reads on the claim of "defining a subset of the plurality of reporting devices (202, 204, 206);"

Fitch further discloses, "prompting one or more of LFEs **202**, **204** and/or **206** to initiate a location determination" (see column 10 lines 61 - 63) and ".....The LFC then sends a One-time Measurement Request message to the LFE to instruct the LFE to obtain location information for the wireless station of interest....."(see Figure 7 and column 11 line 58 – column 12 line 6), which directly reads on the claim of "eliciting the location information corresponding to the target MS from the subset (202, 204, 206);"

In addition, Fitch discloses "each of the LFEs (location finding equipment) **202**, **204** or **206** outputs location information to its respective LFC **208**, **210** or **212**." wherein "The LFCs **208**, **210** and **212** collect and aggregate the "raw" location.....Aggregation

involves using the raw data to determine a wireless station location and uncertainty." and "The stored, standardized information can be used to perform a number of multiple input analyses.....Because of the standardized format, such determinations can be easily made relative to inputs from the same or different LFEs **204**, **206** and/or **208**. (see column 7 lines 30 – 32, column 7 lines42 – 46, and column 8 lines 34 – 43), which directly read on the claim of "combining portions of the location information to determine the location of the target MS."

Regarding **claim 2**, Fitch discloses the method as set forth in **claim 1** (see claim 1), wherein "the location of each of each of the plurality of reporting devices (202, 204, 206) is known to at least one of the reporting device (204, 206, 208) and the location server (214)," as evidenced by " Some types of LFEs include LFE equipment in the handset. Examples include certain GPS and TDOA systems.....Still other LFE systems employ a network of dedicated LFE equipment that is overlayed relative to the wireless network." and "a location-based services system **200** in accordance with the present invention. An important aspect of the present invention relates to the operation of the LM **214** to receive inputs from multiple LFEs **202**, **204** and **206**." (see Figure 2 and column 5 lines 29 – 42, column 6 lines 29 – 32).

Fitch further discloses, "the actual uncertainty regarding the location of a wireless station located in the illustrated cell sector is defined by the coverage area **300**. The location determination output from a cell/sector LFE is therefore effectively defined by the coordinates of the coverage area **300**. (see Figure 3 and column 6 lines 52 – 57) The radius of the cell area defines a predetermined distance from the target MS, and

directly reads on the claim of "the defining step comprises the step of defining the subset to include the plurality of reporting devices (202, 204, 206) whose locations are less than a predetermined distance from the target MS, as estimated based upon the location information."

Regarding **claim 3**, Fitch discloses the method as set forth in **claim 1** (see claim 1), wherein the defining step comprises the step of

"defining the subset to include all the plurality of reporting devices (202, 204, 206) within range of one of a cell and an area, in which the target MS was last located." As evidenced by Fitch, "the actual uncertainty regarding the location of a wireless station located in the illustrated cell sector is defined by the coverage area **300**. The location determination output from a cell/sector LFE is therefore effectively defined by the coordinates of the coverage area **300**." directly reads on this claim (see Figure 3 and column 6 lines 52 – 57)

Regarding **claim 4**, Fitch discloses the method as set forth in **claim 1** (see claim1), wherein the defining step comprises the steps of:

"defining a time period;" As disclosed by Fitch, "The associated method includes the steps of receiving a first LFE input including first location information and first corresponding time information for a particular wireless station, receiving a second LFE input including second location information and second time information for the wireless station, and using the first and second inputs to derive tracking information for the wireless station." directly reads on this portion of the claim. (see column 3 lines 52 – 59)

Fitch further discloses, "the specification may include one or more of the following: the timeliness of the location information (e.g., not older than [date stamp parameter])..... Alternatively, the request may specify the use of the most recent available information....etc." (see column 11 lines 9 – 19) These selection rules are used to define the applicable subset of reporting devices, and directly reads upon the claim of "defining the subset to be all reporting devices (202, 204, 206) which obtained location information corresponding to the target MS during this time period."

Regarding **claim 5**, Fitch discloses the method as set forth in **claim 1** (see claim 1), wherein "the defining step is performed in a portion of the wireless communication system (200) exclusive of the plurality of reporting devices (202, 204, 206), " As disclosed by Fitch, "a WLI (wireless location interface) **224** that allows wireless location applications **226**, **228** and **230** .....prompt one or more LFEs **202**, **204** and/or **206** to initiate a location determination" and "The WLI **224** ..... allows the applications to include a specification with a location request regarding the desired location information. (see column 10 lines 59 – 63 and column 11 lines 9 - 11) read directly on the claim.

Regarding **claim 6**, Fitch discloses the method as set forth in **claim 1** (see claim 1), wherein "the defining step is performed in the plurality of reporting devices (202, 204, 206) according to a set of subset-selection rules." As disclosed by Fitch a subset of reporting devices are selected based on the following subset-selection rules, "the specification may include one or more of the following: the timeliness of the location information (e.g., not older than [date stamp parameter])..... Alternatively, the request

may specify the use of the most recent available information....etc." (see column 11 lines 9 – 19)

Regarding **claim 7**, Fitch discloses the method as set forth in **claim 1** (see claim 1), wherein the eliciting step comprises the steps of:

"identifying the target MS to the subset;" which is disclosed by Fitch as "Invoke message may include Wireless Station ID" (see column 11 line 65)

Fitch further discloses, "FIG. 7 illustrates a sequence of messages associated with a forced LFE access..... The LFC then sends a One-time Measurement Request to the LFE to instruct the LFE to obtain location information for the wireless station of interest.....The LFE then transmits Location Measurement Information to the LFC." (see figure 7 column 11 line 58 – column 12 line 17) This part of the eliciting step directly reads on the part of the claim "requesting the subset to report the location information corresponding to the target MS."

Regarding **claim 8**, Fitch discloses the method as set forth in **claim 1** (see claim 1), wherein

"the location information includes a time stamp identifying when the target MS was at a reported location," As disclosed by Fitch, "determined by way of the time stamps associated with the location information" (see column 8 lines 46 – 47) directly reads on this part of the claim.

Fitch further discloses, "The illustrated LM **214** also includes a tracking facility.....Moreover, interpolation and extrapolation techniques can be employed to determine location at times between measurements or in the future.....that the

information stored in the LC **220** may include wireless station identifiers, locations, uncertainties, confidence levels, travel speeds, travel directions, times and other parameters." and "the velocity facility **216**, ...to use raw data for velocity or tracking calculations.....more accurately reflect station movement." (see column 10 lines 19 – 41 and column 10 lines 44 – 57) which directly read on the part of the claim "wherein the combining step comprises the step of extrapolating a current location of the target MS from a last reported location and time and at least one of another reported location and time, and a reported velocity."

Regarding **claim10**, Fitch discloses the method as set forth in **claim 1** (see claim 1), further comprising in a reporting device (202, 204, 206) the steps of:

"receiving a request to report the location information corresponding to the target MS" Fitch discloses with regard to this portion of the claim:

"FIG. 7 illustrates a sequence of messages associated with a forced LFE access..... The LFC then sends a One-time Measurement Request to the LFE to instruct the LFE to obtain location information for the wireless station of interest.....The LFE then transmits Location Measurement Information to the LFC." (see figure 7 column 11 line 58 – column 12 line 17) This step directly reads on the part of the claim "receiving a request to report the location information corresponding to the target MS;"

Fitch further discloses "In order to obtain a location measurement, it is generally necessary to cause the wireless station to transmit an RF signal for the detection by the LFE (202, 204, 206).....In response, a system access signal is transmitted by the wireless station and detected by the LFE (202, 204, 206). The LFE (202, 204, 206) then

transmits Location Measurement Information to the LFC (208, 210, 212)." (see column 12 lines 6 – 17) which directly reads on the part of the claim "attempting to contact the target MS to determine the location of the target MS, in response to receiving the request

Regarding **claim11**, Fitch discloses a location server (214) in a wireless communication system (200) for determining a location of a mobile station (MS), the location server (214) comprising:

"a communication interface;" (208, 210, 212) disclosed by Fitch as "each of the LFEs **202**, **204** or **206** outputs location information to its respective LFC **208**, **210** or **212**." and "In response, the LM (214) transmits a QueryLocationInvoke message to the LFC (208, 210, 212) to force an LFE (202, 204, 206) determination, and the LFC (208, 210, 212) confirms receipt of this message" (see Figure 2 and column 7 lines 30 – 32 and column 11 lines 60 – 64)

"a processor (226, 228, 230) coupled to the communication interface (208, 210, 212) for controlling the communication interface (208, 210, 212) to communicate with a target MS and with a plurality of reporting devices (202, 204, 206) to obtain location information corresponding to the target MS;" which is disclosed by Fitch as "the illustrated system **200** includes a wireless location interface (WLI) **224** that allows wireless location applications **226**, **228** and **230** to selectively access information stored in the LC **220** or prompt one or more of LFEs **202**, **204** and/or **206** to initiate a location determination. The WLI **224** provides a standard format for submitting location requests to the LM **214** and receiving responses from the LM **214**" and "In response, the LM

(214) transmits a QueryLocationInvoke message to the LFC (208, 210, 212) to force an LFE (202, 204, 206) determination, and the LFC (208, 210, 212) confirms receipt of this message" (see Figure 2 and column 10 lines 58 - 65 and column 11 lines 60 – 64)

"a database (220) coupled to the processor (226, 228, 230) for storing the location information," which is disclosed by Fitch as "information stored in the LC (location cache) **220** may include wireless station identifiers, locations, uncertainties, confidence levels, travel speeds, travel directions, times and other parameters." (see column 10 lines 38 – 41)

wherein the processor is programmed to:

"define a subset of the plurality of reporting devices (202, 204, 206);" disclosed by Fitch as "the illustrated system **200** includes a WLI (wireless location interface) **224** that allows wireless location applications **226**, **228** and **230** to selectively access information stored in the LC **220** or prompt one or more of LFEs **202**, **204** and/or **206** to initiate a location determination.....In this manner, the applications can make use of the best or most appropriate location information available....." (see column 10 line 58 – column 11 line 3). The ability to prompt one or more LFEs demonstrates the ability to designate subsets of reporting devices, and directly reads on the claim of "defining a subset of the plurality of reporting devices (202, 204, 206);"

"elicit the location information corresponding to the target MS from the subset (202, 204, 206);" disclosed by Fitch as "prompt one or more of LFEs **202**, **204** and/or **206** to initiate a location determination." (see column 10 lines 61 – 63)

"combine portions of the location information to determine the location of the target MS." as disclosed by Fitch as "each of the LFEs (location finding equipment) **202**, **204** or **206** outputs location information to its respective LFC **208**, **210** or **212**." wherein "The LFCs **208**, **210** and **212** collect and aggregate the "raw" location.....Aggregation involves using the raw data to determine a wireless station location and uncertainty." and "The stored, standardized information can be used to perform a number of multiple input analyses.....Because of the standardized format, such determinations can be easily made relative to inputs from the same or different LFEs **204**, **206** and/or **208**. (see column 7 lines 30 – 32, column 7 lines42 – 46, and column 8 lines 34 – 43), which directly read on the claim of "combining portions of the location information to determine the location of the target MS."

Regarding **claim12**, Fitch discloses the location server (214) as set forth in **claim 11** (see claim 11), wherein

"the location of each of the plurality of reporting devices (202, 204, 206) is known to at least one of the reporting device (202, 204, 206) and the location server (214)," is disclosed by Fitch as " Some types of LFEs include LFE equipment in the handset. Examples include certain GPS and TDOA systems.....Still other LFE systems employ a network of dedicated LFE equipment that is overlayed relative to the wireless network." and "a location-based services system **200** in accordance with the present invention. An important aspect of the present invention relates to the operation of the LM **214** to receive inputs from multiple LFEs **202**, **204** and **206**." (see Figure 2 and column 5 lines 29 – 42, column 6 lines 29 – 32).

"the processor (226, 228, 230) is further programmed to define the subset to include the plurality of reporting devices (202, 204, 206) whose locations are less than a predetermined distance from the target MS, as estimated based upon the location information" Fitch discloses "the actual uncertainty regarding the location of a wireless station located in the illustrated cell sector is defined by the coverage area **300**. The location determination output from a cell/sector LFE is therefore effectively defined by the coordinates of the coverage area **300**. (see Figure 3 and column 6 lines 52 – 57) The radius of the cell area defines a predetermined distance from the target MS, and directly reads on the claim of defining "the subset to include the plurality of reporting devices (202, 204, 206) whose locations are less than a predetermined distance from the target MS, as estimated based upon the location information."

Regarding **claim13**, Fitch discloses the location server (214) as set forth in **claim 11** (see claim 11), wherein

"the processor (226, 228, 230) is further programmed to define the subset to include all the plurality of reporting devices (202, 204, 206) within range of one of a cell and an area, in which the target MS was last located." As evidenced by Fitch "the actual uncertainty regarding the location of a wireless station located in the illustrated cell sector is defined by the coverage area **300**. The location determination output from a cell/sector LFE is therefore effectively defined by the coordinates of the coverage area **300**." (see Figure 3 and column 6 lines 52 – 57) directly reads on this claim.

Regarding **claim14**, Fitch discloses the location server (214) as set forth in **claim 11** (see claim 11), wherein the processor (226, 228, 230) is further programmed to:

"identify the target MS to the subset (202, 204, 206);" is disclosed by Fitch as "Invoke message may include Wireless Station ID" (see column 11 line 65)

"request the subset (202, 204, 206) to report the location information corresponding to the target MS." as disclosed by Fitch "FIG. 7 illustrates a sequence of messages associated with a forced LFE access..... The LFC then sends a One-time Measurement Request to the LFE to instruct the LFE to obtain location information for the wireless station of interest.....The LFE then transmits Location Measurement Information to the LFC." (see figure 7 column 11 line 58 – column 12 line 17) This part of the eliciting step directly reads on the part of the claim "requesting the subset to report the location information corresponding to the target MS."

Regarding **claim15**, Fitch discloses the location server (214) as set forth in **claim 11** (see claim 11), wherein:

"the location information includes a time stamp identifying when the target MS was at a reported location" As disclosed by Fitch "determined by way of the time stamps associated with the location information" (see column 8 lines 46 – 47) directly reads on this part of the claim.

Fitch further discloses "The illustrated LM **214** also includes a tracking facility.....Moreover, interpolation and extrapolation techniques can be employed to determine location at times between measurements or in the future.....that the information stored in the LC **220** may include wireless station identifiers, locations, uncertainties, confidence levels, travel speeds, travel directions, times and other parameters." and "the velocity facility 216, ...to use raw data for velocity or tracking

calculations.....more accurately reflect station movement." (see column 10 lines 19 – 41 and column 10 lines 44 – 57) which directly read on the part of the claim "wherein the processor is further programmed to extrapolate a current location of the target MS from a last reported location and time and at least one of another reported location and time, and a reported velocity."

Regarding **claim16**, Fitch discloses a reporting device (202, 204, 206) in a wireless communication system (200) for determining a location of a mobile station (MS), the reporting device comprising:

"a processor for controlling the reporting device (202, 204, 206), the processor comprising a memory" is inherently disclosed by Fitch as evidenced by the ability of the device to execute commands that would have to be received and stored within a memory location. In this regard Fitch discloses "a One-time Measurement Request message to the LFE (202, 204, 206) to instruct the LFE (202, 204, 206) to obtain location information for the wireless station of interest." (see column 12 lines 1 – 3)

"a transceiver coupled to the processor for cooperating with the processor to communicate with a target MS for obtaining and storing in a memory location information corresponding to the target MS" is inherently disclosed by Fitch as evidenced by the ability of the device to receive and transmit information ," In this regard Fitch discloses "In response, a system access signal is transmitted by the wireless station and detected by the LFE (202, 204, 206). The LFE (202, 204, 206) then transmits Location Measurement information to the LFC (208, 210, 212)." (see column 12 line 14 – 17) It is inherent that a memory holds the received information before it is

transmitted and during the process of determining the location measurement information.

Wherein the processor is programmed to cooperate with the transceiver to:

"receive from a location server (214) a message eliciting the location information corresponding to the target MS from a subset of a plurality of reporting devices (202, 204, 206) is disclosed by Fiitch as "FIG. 7 illustrates a sequence of messages associated with a forced LFE access..... In response, the LM (214) transmits a QueryLocationInvoke message to the LFC (208, 210, 212)....The LFC then sends a One-time Measurement Request to the LFE (202, 204, 206) to instruct the LFE to obtain location information for the wireless station of interest.....The LFE (202, 204, 206) then transmits Location Measurement Information to the LFC (208, 210, 212)." (see figure 7 column 11 line 58 – column 12 line 17)

"communicate the location information to the location server (214) when the reporting device is a member of the subset." Is disclosed by Fitch as "The LFE (202, 204, 206) then transmits Location Measurement Information to the LFC (208, 210, 212) ..... The LFC (208, 210, 212) provides a Location Update to the LC (220) and, finally, the LM (214) transmits a WLARequestLcationReturnResult" which reads directly on this portion of the claim.

Regarding **claim18**, Fitch discloses the reporting device (202, 204, 206) as set forth in **claim 16** (see claim 16), wherein the processor is further programmed to:

"receive a request to report the location information corresponding to the target MS;" is disclosed by Fitch as "The LFC (208, 210, 212) then sends a One-time

Measurement Request message to the LFE (202, 204, 206) to instruct the LFE (202, 204, 206) to obtain location information for the wireless station of interest." (see column 11 line 67 – column 12 line 3)

"attempt to contact the target MS to determine the location of the target MS, in response to receiving the request." Is disclosed by Fitch as "In order to obtain a location measurement, it is generally necessary to cause the wireless station to transmit an RF signal for detection by the LFE (202, 204, 206)..... In response a system access signal is transmitted by the wireless station and detected by the LFE (202, 204, 208). The LFE (202, 204, 206) then transmits Location Measurement Information to the LFC." (see column 11 line 67 – column 12 line 17) which reads directly on this portion of the claim.

Regarding **claim19**, Fitch discloses the reporting device (202, 204, 206) as set forth in **claim 16** (see claim 16), wherein:

" the reporting device (202, 204, 206) is a mobile wireless device similar to the target MS" as disclosed by Fitch "Some types of LFEs (202, 204, 206) include LFE equipment in the handset. Examples include certain GPS and TDOA systems. In such cases, location information may be encoded into signals transmitted from the handset to a cell site or other receiver" (see column 5 lines 29 – 33) which reads directly on the claim.

Regarding **claim 20**, Fitch discloses the reporting device (202, 204, 206) as set forth in **claim 16** (see claim 16), wherein:

"the reporting device (202, 204, 206) is a fixed wired device" as disclosed by Fitch "Other LFE (202, 204, 206) systems, i.e., embedded systems use equipment

associated with individual cell sites such as specialized antennae to make location determinations.....Still other LFE (202, 204, 206) systems employ a network of dedicated LFE equipment that is overlayed relative to the wireless network." (see column 5 lines 35 – 42) directly reads on the claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. **Claims 9, 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Fitch et al. (Hereafter referred to as Fitch) (U.S. Patent Number 6,321,092), in view of Walsh et al. (Hereafter referred to as Walsh) (U.S. Patent Number 6,603,977).

Regarding **claim 9**, Fitch discloses a method in a wireless communication system (200) for determining a location of a mobile station according to **claim 1**. However, Fitch fails to specifically disclose the steps of "communicating between a reporting device and the target MS over a short-range link; and storing the location of the reporting device as the location of the target MS." However, the use of short-range links for communication between wireless devices, and storing the location of the

reporting device as the location of the target MS was well known in the art, as taught by Walsh.

In the same field of endeavor, Walsh discloses the steps of: "communicating between a reporting device (102) and the target MS (104) over a short-range link;" as "The communication channel **124** between the location information system **102** and the wireless communication device **104** is preferably a radio frequency communication channel operating at 2.4 GHz according to the Bluetooth technology standard ..... Alternatively, the communication channel **124** may include, without limitation, an infrared communication channel..... " (see Figure 1, 2 and column 9 line 64 - column 10 line 16); and

"storing the location of the reporting device (102) as the location of the target MS (104)" is disclosed by Walsh as "FIG. **2** illustrates a block diagram of the location information system **102** ..... includes a controller **200** .....The controller **200** receives location information representing a plurality of location descriptions.....sends location information to the wireless communication device **104** present in a predetermined area....over a short-range wireless communication channel, such as a Bluetooth channel....." (see Figure 2 and column 10 lines 33 – 53).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify Fitch, to combine the steps of determining a location of a mobile station, with the short-range communication techniques of Walsh, for the purpose of adding an additional way to contact and determine the position of the target MS, while conserving valuable radio frequency spectrum.

Regarding **claim 17**, Fitch discloses everything claimed as applied above (see **claim 16**) for a reporting device (202, 204, 206) in a wireless communication system (200). Fitch further discloses, "a location determining element coupled to the processor for determining the location of the reporting device (202, 204, 206)" as evidenced by "each of the LFEs 202, 204 or 206 outputs location information.....The nature of this "raw" LFE (202, 204, 206) output depends in part on the type of LFE involved. For example, in the case of a cell sector system the output may be a sector identifier or coordinates; in the case of a TOA system, the output may be a sector identifier or coordinates and a radius; in an AOA system the output may be angular measurements ..... in TDOA systems the output .....; and in a GPS systems the output may be geographic coordinates." Thus it is evident that the type of location information outputted by the LFE is dependent on the type of location determining element that is coupled to the processor of LFE. (see column 7 lines 30 – 41)

However, Fitch fails to specifically disclose a reporting device wherein the processor is further programmed to:

"control the transceiver to limit communication range between the reporting device and the target MS to that of a short-range link;

communicate with the target MS; and

store the location of the reporting device as the location of the target MS." However, the use of short-range links for communication between wireless devices, and storing the location of the reporting device as the location of the target MS was well known in the art, as taught by Walsh.

In the same field of endeavor, Walsh discloses the steps of: "control the transceiver to limit communication range between the reporting device (102) and the target MS (104) over a short-range link;" as "The communication channel **124** between the location information system **102** and the wireless communication device **104** is preferably a radio frequency communication channel operating at 2.4 GHz according to the Bluetooth technology standard ..... Alternatively, the communication channel **124** may include, without limitation, an infrared communication channel..... " and "The short-range communications circuit 304 receives location information from the location information system **102** over a short-range wireless communication channel **124** ..... The controller (300) coupled to each of the short-range communication circuit **304** and the long-range communication circuit **302**, controls each of short-range communication circuit **304** and the long-range communication circuit **302**. (see Figure 1, 2, 3 and column 9 line 64 - column 10 line 16 and column 12 line 65 – column 13 line 39); and

"storing the location of the reporting device (102) as the location of the target MS (104)" is disclosed by Walsh as "FIG. **2** illustrates a block diagram of the location information system **102** ..... includes a controller **200** .....The controller **200** receives location information representing a plurality of location descriptions.....sends location information to the wireless communication device **104** present in a predetermined area....over a short-range wireless communication channel, such as a Bluetooth channel....." (see Figure 2 and column 10 lines 33 – 53).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify Fitch, to combine the steps of determining a location of a

mobile station, with the short-range communication techniques of Walsh, for the purpose of adding an additional way to contact and determine the position of the target MS, while conserving valuable radio frequency spectrum.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Simeon Marc Balban whose telephone number is (703) 305-8731. The examiner can normally be reached on M - F 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D Banks - Harold can be reached on (703) 305-4379. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Marsha D Banks-Harold

MB

MARSHA D. BANKS-HAROLD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600